



**US Army Corps
of Engineers®**

Seattle District

Notice of Preparation

Planning, Environmental and Cultural
Resources Branch

PO Box 3775

Seattle, WA 98124-3755

ATTN: Elizabeth McCasland (PMP-E)

Public Notice Date: 14 December 2017

Expiration Date: 14 January 2018

Reference: PMP-18-02

PROJECT NAME: *Elmway Levee Rehabilitation, Okanogan County, Washington*

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Seattle District (Corps) plans to prepare, pursuant to the National Environmental Policy Act (NEPA), an environmental assessment (EA) for proposed levee repairs to the Elmway Non-Federal Levee, constructed along the right bank of the Okanogan River upstream of Okanogan, Washington.

AUTHORITY

The proposed levee repair is authorized by Public Law 84-99 (33 U.S. Code Section 701n). The Corps' rehabilitation and restoration work under this authority is limited to the repair of flood control works damaged or destroyed by floods. The statute authorizes rehabilitation to the condition and level of protection exhibited by the flood control work prior to the damaging event. Okanogan County is the levee owner and non-Federal sponsor of the proposed action. Original construction of the project was completed in 1972. In 1974, as part of Advanced Snowpack Operations, the Corps extended the downstream end by 320 linear feet (LF) to tie the levee into high ground. There have been no previous PL 84-99 repairs on the levee.

PROJECT LOCATION and DESCRIPTION

The Elmway Levee is comprised of a rock and earthen embankment levee along Okanogan River, approximately river mile 26.6 to 26.0, in the City of Okanogan, Okanogan County, Washington (Figure 1). The levee is 1,800 long; 6 feet tall on the landward side; 12 feet wide at the crown; and has side slopes of 1.5-2H:1V riverward and landward. The 1974 levee designs indicate a launchable toe with Class III riprap armoring on the waterward face. The slopes and toe of the levee are overgrown with small trees and shrubs..

NEED

In its undamaged state, the levee provides flood risk reduction up to the 2 percent (50-yr) Annual Chance of Exceedance (ACE) event (overtopping). The levee provides protection to structures, including residences, businesses, and public roads and utilities (water, power, and sewer).

The May and June 2017, high river flows in the Okanogan River resulted in erosion of the levee slope and toe, including loss of riprap and embankment material up to several feet above the water level. The approximate area of missing material is rectangular in shape, 25 feet high and 5 feet wide. The damage is in two discontinuous sites (Figure 2), referred to as Site 1 and Site 2, which are downstream and upstream, between levee stations 1+00 to 2+50 and 4+00 to 4+50 respectively. In the damaged state, the level of protection is diminished from 2 percent (50-yr) to 33 percent (3-yr) ACE. The total length of repair, including construction tie-ins at each end of each site, is approximately 200 feet. If the levee were to fail, a number of structures (commercial and residential) could be flooded and public infrastructure (roads, power, water, and septic sewer systems) could be damaged. The Corps has not received any reports of lost lives in previous floods, an indication of a well-informed population at risk; however, the risk of loss of life still exists.

PURPOSE

The purpose of the project is to restore the pre-damage level of flood protection to protect lives and property from subsequent flooding.

PROPOSED ACTIONS

Four alternatives are being considered and are as follows:

- a) No Action Alternative. The No Action Alternative would leave the levee in its current damaged state. This alternative would not meet the project purpose because the levee would likely be further damaged in future flood events and could fail. This alternative is unacceptable because failure to take action would endanger protected homes, businesses and public infrastructure during future flood events.
- b) Non-Structural Alternative. This alternative consists of floodplain management strategies generally involving changes in land use offered by other federal and state programs. Such strategies would include: zoning, easements, flood warning, floodplain evacuation, and flood insurance. Nonstructural strategies involve acquisition, relocation, elevation, and flood proofing existing structures. The costs and timeframe for implementing this alternative makes it impractical. Furthermore, the participation of the non-Federal sponsor would be required to implement a non-structural alternative, and the Sponsor has not agreed to meet its various obligations in executing a non-structural alternative.
- c) Set Back Levee. This alternative would shift the alignment of the levee embankment landward by the necessary distance in order to avoid or minimize direct contact with the river current. Typically, the setback would be a newly-constructed earth embankment structure and would abandon the existing levee located on the river bank. It may not be able to be completed prior to the next flood season and may be more costly than other alternatives due to more extensive embankment material requirements. This approach would encroach on existing structures and privately-owned land currently used for residential and business purposes. This alternative would also require participation of the non-Federal sponsor to implement, and the Sponsor has not agreed to meet its various obligations in executing a setback alternative.
- d) Repair in Kind Alternative. The Repair in Kind Alternative would restore the levee to pre-flood level of protection. The toe would be reconstructed in the pre-damage toe location using Class III riprap. The damaged slope would be re-armored with a 3-foot thick blanket of Class III riprap placed over a 12-inch layer of quarry spalls (Figure 3). The upstream and

downstream ends would be smoothly transitioned into the existing slopes. Work would require removal of approximately 25 trees (predominately mountain alder, 4-8 inches Diameter Breast Height (DBH), and 2-3 larger alders 8-12 inches DBH)) and shrubs (mix of alders, wild rose, and red osier dogwood). Anticipated environmental conservation measures are included in the project. All repairs would occur within the pre-damage footprint. Total construction length would be approximately 200 LF. Willows (*Salix* spp.) stakes would be planted at the ordinary high water (OHW) line. The repair work is expected to take 4 to 6 weeks to complete.

The Repair In Kind Alternative was selected as the preliminarily recommended alternative for the Elmway levee repair. This alternative would incur the least cost to restore the full level of protection. Final selection of the preferred alternative will be made after final design has been completed. The alternatives will be evaluated according to NEPA. Any recommendations that emerge from NEPA and the Endangered Species Act (ESA) evaluation will be considered. All NEPA and ESA processes are intended to be completed prior to project construction.

Best management practices would be employed to minimize project impacts. Project construction may include environmental enhancements to offset temporary construction impacts and long-term loss of vegetation on the levee slope. Environmental enhancements will be assessed further during the NEPA analysis, including full consideration of those proposed by agencies during NEPA coordination. Appropriate enhancements would be incorporated into the project during Engineering and Design. Environmental enhancements already incorporated into the design concept include best management practices to protect water quality.

EXISTING CONDITIONS

The Elmway Levee is along the urbanized right bank of the Okanogan River. The levee has an average of 6 feet tall on the landward side, sloping 12-15 down on the riverward side, with a 12-ft crown, constructed of earthen material, predominately sand and gravel with Class III riprap armoring and a launchable toe. Silt deposits and heavy vegetation obscure much of the steep riverward slope. Both sites 1 and 2 are vegetated with deciduous small trees and shrubs, predominately mountain alder (*Alnus incana* spp. *tenuifolia*), wild rose (*Rosa* spp.), and red-osier dogwood (*Cornus stolonifera*) as well as grasses and forbs. Human impacts along the Okanogan River have included road construction, conversion of riparian habitat for agricultural, residential, and commercial development, and water diversion for agricultural irrigation. These impacts can increase sedimentation and bank erosion, reduce the extent and availability of riparian vegetation, and limit channel function.

ANTICIPATED IMPACTS

The Corps' preliminary analyses of the principal effects of the proposed Repair in Kind Alternative are summarized below.

Wetlands: No wetlands are located at or immediately adjacent to the repair sites.

Water Quality: The Okanogan River is listed by Washington Department of Ecology on the State's 303(d) list of impaired waters for DDT and PCBs in edible fish tissue, as well as for non-attainment of Washington's chronic criteria for DDT in water. Rehabilitation of the levee would

require work in the active channel with some work below the elevation of ordinary high water. Construction could be expected to cause minor, temporary, localized increases in turbidity. Best management practices, including restrictions on fueling and prevention of fluid leaks from construction equipment would minimize discharge of pollutants into the river. Construction materials would be obtained from contaminant-free sources. Turbidity would be monitored upstream and downstream of the project site during construction, if required. If turbidity exceeded state water quality standards, particulate-generating activities would be halted until standards were met and construction methods would be changed to avoid future exceedances.

Biological Resources: The following species are listed under the Endangered Species Act (ESA), and could potentially occur in the general project area:

- Canada Lynx (*Lynx canadensis*) – Threatened
- Gray Wolf (*Canis lupus*) – Endangered
- North American Wolverine (*Gulo gulo luscus*) – Proposed Threatened
- Yellow-billed Cuckoo (*Coccyzus americanus*) – Threatened
- Bull Trout (*Salvelinus confluentus*) – Threatened
- Upper Columbia River Steelhead (*Oncorhynchus mykiss*) – Threatened
- Spring Chinook salmon (*O. tshawytscha*) – Endangered

In addition, the project area is within the designated critical habitat for steelhead and Chinook. Potential effects of the proposed project on threatened and endangered species and designated critical habitat will be addressed in accordance with Section 7 of the ESA.

Waterways that are inhabited by listed species have approved fish work windows identified to limit impacts to listed species. For the Okanogan River, the preferred in-water work window to avoid or minimize impacts to listed fish species is July 1 to August 15.

Canada lynx, gray wolf, grizzly bear, wolverine, and yellow-billed cuckoo are not expected to be present in the specific project area due to specialized habitat requirements, lack of tolerance for human activity, or both. The project would be unlikely to affect individuals of those species. The project area is not within designated or proposed critical habitats of these species.

Bald eagles, which are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, are not known to nest in the immediate vicinity. The primary impacts to fish and wildlife would be temporary increases in turbidity, noise, vibration, and human activity, which may displace fish and wildlife during construction. Removal of vegetation may displace wildlife and slightly reduce in-water shade and organic input to the river. The proposed repairs would require woody vegetation removal within the river riparian zone. As a conservation measure for the vegetation removal during construction, the project proposes to install willow lifts at one-foot above ordinary high water and place topsoil over disturbed areas above ordinary high water and hydroseed using a native seed mixture where appropriate. Hydroseed may not be placed if conditions are believed to be too dry..

Cultural Resources: The Corps is currently taking actions to identify historic properties that may be affected by the proposed action as required by Section 106 of the National Historic Preservation Act. The Corps is consulting with the Washington State Historic Preservation

Officer (SHPO), Indian tribes, and other consulting parties, about the project and will complete identification and evaluation for historic properties as well as make agency findings of effect for Section 106 prior to approval of the proposed action.

Air Quality: Construction vehicles and heavy equipment used during the proposed construction would temporarily and locally increase gasoline and diesel exhaust fumes. The small area of construction and the short duration of the work would limit the impact to air quality. The activity would constitute routine repair of an existing facility, generating an increase in direct emissions of a criteria pollutant or its precursors that would clearly be de minimis and would therefore be exempted by 40 CFR Section 93.153(c)(2)(iv) from the conformity determination requirements. Emissions generated by the construction activity would be minor and short-term. Unquantifiable but insignificant exacerbation of effects of carbon dioxide emissions on global climate change would be anticipated.

Noise: Temporary increases in noise would occur as a result of construction for the proposed action. No long-term change in noise levels would occur as a result of the project. Work would occur during daylight hours to minimize disruption to nearby residents.

Traffic: Construction-related traffic may cause temporary increases to, and disruption of, local traffic. Flaggers and signs would be used, as needed, to direct traffic safely around the construction site. No long-term change in traffic would occur as a result of the project.

Cumulative Effects: The proposed action would not appreciably alter the baseline condition. Cumulative effects of these actions will be fully considered in the environmental documentation, as required under NEPA and ESA.

COMPLIANCE WITH OTHER LAWS AND REGULATIONS

The Corps will coordinate the proposed action with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) concerning effects of the proposed repair activities on listed species and their critical habitat, pursuant to Sec. 7(a)(2) of the ESA.

The proposed project will be analyzed with respect to its effects on Tribal Treaty Rights or rights reserved to tribes through executive order or other legal instrument. The proposed action area is within the area of interest of the Colville Confederated Tribes, Spokane Tribe, Kalispel Tribe, and the Yakama Nation. The Corps will coordinate and consult with these tribes on the proposed action. The Corps is consulting with SHPO, Indian tribes, and other consulting parties about the project in accordance with Section 106 of the National Historic Preservation Act as implemented in the regulations at 36 CFR Part 800.

The Corps concludes that the project would not be not subject to regulation under Sections 401 and 404 of the Clean Water Act. The exemption from the requirement to evaluate the effects of discharges of fill material into waters of the United States under 33 USC 1344(f)(1)(B), as implemented by 33 C.F.R. 323.4(a)(2) applies because all riverward work at the repair site would be of the same character, scope, and size of the pre-damaged levee. The footprint of the proposed repair that would fall within waters of the United States would be no larger than the pre-damage footprint; it would result in restoration of the pre-existing levee profile, character,

and materials. Therefore, the proposed repair of the Elmway levee would not require a 404 (b)(1) evaluation nor a Section 401 water quality certification. In addition, the 200-foot total length of levee repair would be expected to disturb less than 1 acre of land; therefore, a Section 402 permit would not be required.

EVALUATION

The Corps has made a preliminary determination that the environmental impacts of the proposed levee repair work can be adequately evaluated under NEPA through preparation of an EA, and preparation of an EA is currently underway.

The Corps invites submission of comments on the environmental impact of the proposed action. Comments will be considered in determining whether it would be in the best public interest to proceed with the proposed project. The Corps will consider all submissions received before the expiration date of this notice. The nature or scope of the proposal may be changed upon consideration of the comments received. The Corps will initiate an environmental impact statement (EIS), and afford all of the appropriate public participation opportunities attendant to an EIS, if significant effects on the quality of the human environment are identified and cannot be mitigated.

Submit comments to this office, Attn: Planning, Environmental and Cultural Resources Branch, no later than 30 days after the posting of this notice to ensure consideration. In addition to sending comments via mail to the above address, comments may be e-mailed to Ms. Beth McCasland, Environmental Coordinator, at Elizabeth.L.mccasland@usace.army.mil.

The Notice of Preparation can be found at the following website:

<http://www.nws.usace.army.mil/Missions/Environmental/Environmental-Documents/> under “*Elmway Levee Rehabilitation, Okanogan County, Washington.*”

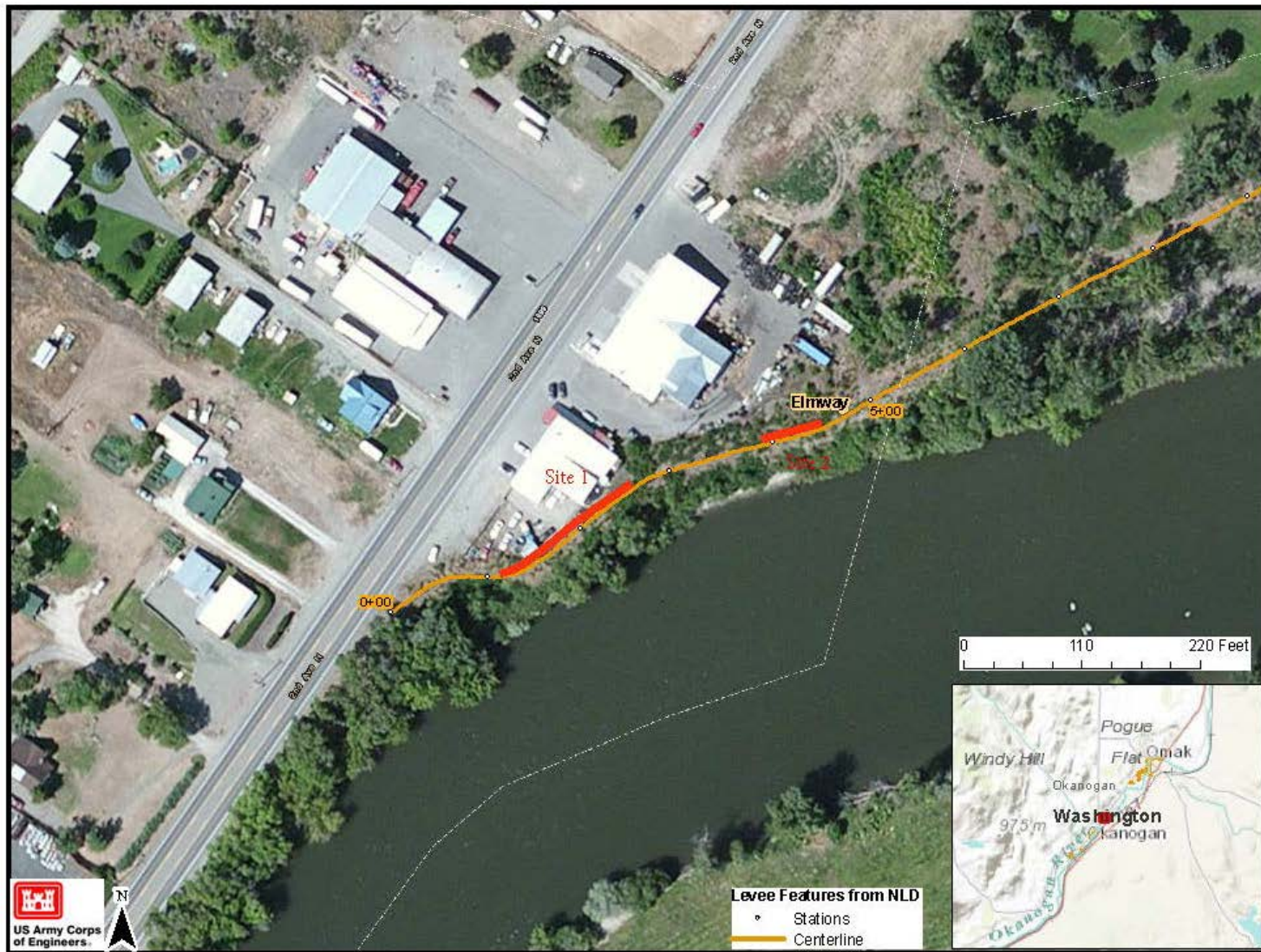


Figure 1. Location Map, with damaged levee section shown in red, and levee alignment in gold.



Figure 2. Damaged Sections (repair sites).

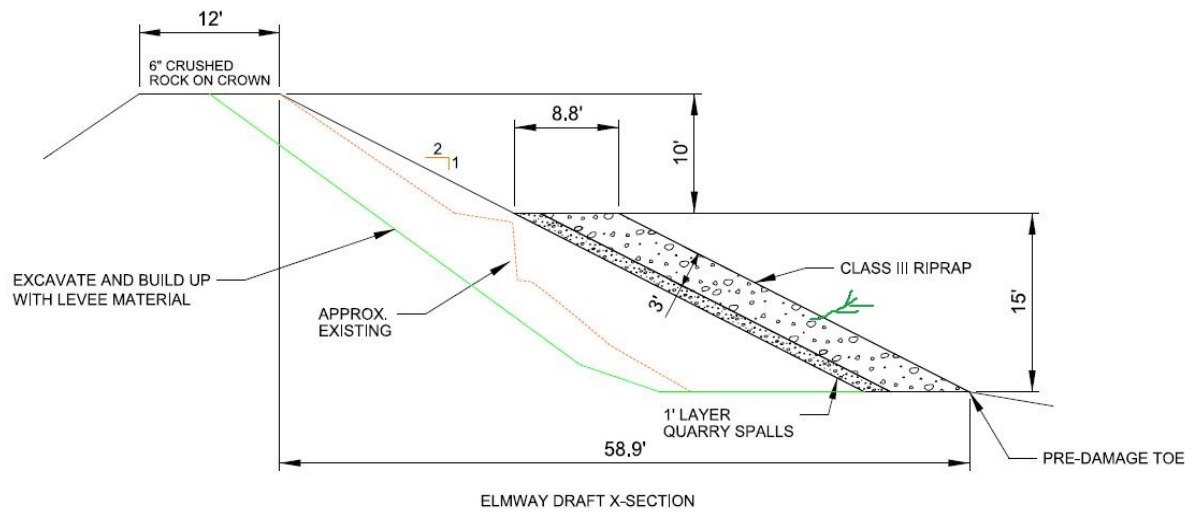


Figure 3. Typical cross-section of proposed levee repair, with willow lift at OHW.



Figure 4. Okanogan River, looking upstream towards the damaged area (Note heavily leaning trees and shrubs).



Figure 5. Damaged levee section, showing steep slope of remaining levee (top-down view).



Figure 6. Damaged levee section, looking upwards from river's edge.